

PATENT
Atty. Dkt. No. SAR 13733**REMARKS**

This is intended as a full and complete response to the Office Action dated March 25, 2004, having a shortened statutory period for response set to expire on June 25, 2004. Please reconsider the claims pending in the application for reasons discussed below.

I. Rejection of claims under 35 USC § 102

Claims 1, 12, 19, 20, and 21 stand rejected under 35 USC § 102(b) as being anticipated by Bergen et al. (WO 98/21688) (Bergen). Applicants respectfully traverse the rejection.

Bergen discloses a method and apparatus for representing, storing, and accessing video information. The video information is represented in a manner such that indexing of the video information is facilitated.

The Examiner's attention is directed to the fact that Bergen fails to disclose a method or apparatus where the identified common attributes are tracked through the plurality of processed video segments. Specifically Applicants' claims 1 and 12 positively recite:

1. Apparatus for processing video comprising:
a segmenter for segmenting video sequences into a plurality of video segments;
a video processor for processing the video segments of the video sequences and identifying common attributes between video segments; and
a database for storing processed segments of the video sequences, where the identified common attributes are tracked through the plurality of processed video segments. (emphasis added)
12. A method of image processing comprising:
segmenting a video sequence into a plurality of video clips;
storing said video clips in a database with an associated unique identifier and identifying common attributes between video clips;
storing said video clips in said database such that the identified common attributes are tracked through the plurality of processed video segments; and
indexing said stored video. (emphasis added)

Applicants' invention is capable of identifying attributes, e.g., objects, in

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processed video segments. Once these attributes are identified, the attributes can be tracked through a plurality of processed video segments. For example, a user can "click on" a portion of a scene and the system would associate that portion of the scene with an object. In one embodiment, the user may "click on" a person's face, and the authoring tool could then retrieve all video segments containing a similar face in the video. It is typically difficult to match a face when the face is viewed from two different viewpoints. However it is much simpler to track a face as it changes viewpoints. Thus, the invention is capable of tracking selected faces through one or more scenes. The locations where similar faces in the video have been detected are then tracked using a tracker that is not necessarily specific to tracking faces. This means that the tracker will function if the person in the scene turns away or changes orientation.

In contrast, Bergen discloses *identifying* actors and objects within a scene but does not teach or suggest *tracking* actors or objects through more than one scene. (see Bergen, page 15, lines 22-27) Thus Bergen fails to disclose that the identified common attributes are tracked through the plurality of processed video segments.

Therefore, the Applicants submit that claims 1 and 12 as they now stand, fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Claims 19, 20, and 21 are patentable at least by virtue of depending from their respective base claim. Withdrawal of the rejection is respectfully requested.

II. Rejection of claims under 35 USC § 103

A. Claims 2-4 and 16-18

Claims 2-4 and 16-18 stand rejected under 35 USC § 103(a) as being obvious over Bergen in view of Brodersen et al. (U.S. Patent No. 6,453,459, issued September 17, 2003) (Brodersen). Applicants respectfully disagree.

As stated previously in section I. of this response, Bergen fails to disclose that the identified common attributes are tracked through the plurality of processed video segments, as positively recited by the Applicants in claims 1 and 12. Brodersen discloses a DVD menu authoring method for automatically performing low level DVD configuration functions. Specifically, the method allows authoring of a DVD title and

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recalling authoring information. The method constructs a skeleton form of a programming chain to provide the user with a GUI.

Broderon fails to cure the deficiencies of Bergen. Neither of the references cited by the Examiner discloses that the identified common attributes are tracked through the plurality of processed video segments. Thus, the Examiner has failed to present a prima facie case of obviousness in combining Bergen with Broderon to arrive at the claimed invention of Applicants' claims 2-4 and 16-18. Therefore, the Applicants submit that claims 2-4 and 16-18 as they now stand, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Withdrawal of the rejection is respectfully requested.

B. Claims 5-9 and 13-15

Claims 5-9 and 13-15 stand rejected under 35 USC § 103(a) as being obvious over Bergen in view of Kenner et al. (U.S. Patent No. 5,956,716, issued September 21, 1999) (Kenner). Applicants respectfully disagree.

As stated previously in section I. of this response, Bergen fails to disclose that the identified common attributes are tracked through the plurality of processed video segments, as positively recited by the Applicants in claims 1 and 12. Kenner discloses a video clip storage and retrieval system whereby video clips, stored locally and/or at a more remote location, can be requested and retrieved by a user at the user's multimedia terminal. The user may then view, copy, or print the video clip as desired. (see Kenner, Abstract)

Kenner fails to cure the deficiencies of Bergen. Neither of the references cited by the Examiner discloses that the identified common attributes are tracked through the plurality of processed video segments. Thus, the Examiner has failed to present a prima facie case of obviousness in combining Bergen with Kenner to arrive at the claimed invention of Applicants' claims 5-9 and 13-15. Therefore, the Applicants submit that claims 5-9 and 13-15 as they now stand, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Withdrawal of the rejection is respectfully requested.

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C. Claims 10, 11, 22, 23, and 25

Claims 10, 11, 22, 23, and 25 stand rejected under 35 USC § 103(a) as being obvious over Bergen in view of Balram et al. (U.S. Patent No. 6,034,733, issued March 7, 2000) (Balram). Applicants respectfully disagree.

Regarding claims 10, 11, 22, and 23, as stated previously in section I. of this response, Bergen fails to disclose that the identified common attributes are tracked through the plurality of processed video segments, as positively recited by the Applicants in claims 1 and 12. Balram discloses a video deinterlacing system that receives interlace video data at a non-deterministic rate and generates non-interlaced data as a function of the interlaced video data.

Balram fails to cure the deficiencies of Bergen. Neither of the references cited by the Examiner discloses that the identified common attributes are tracked through the plurality of processed video segments. Thus, the Examiner has failed to present a prima facie case of obviousness in combining Bergen with Balram to arrive at the claimed invention of Applicants' claims 5-9 and 13-15. Therefore, the Applicants submit that claims 10, 11, 22, and 23 as they now stand, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Withdrawal of the rejection is respectfully requested.

Regarding claim 25, Applicants submit there is no motivation to combine Bergen with Balram. Specifically, each of the references addresses problems that are different from each other. For example, Bergen relates to indexing video information; and Balram relates to deinterlacing video data.

For prior art references to be combined to render obvious a subsequent invention under 35 U.S.C. § 103, there must be something in the prior art as a whole which suggests the desirability, and thus the obviousness, of making the combination. *Uniroyal v. Rudkin-Wiley*, 5 U.S.P.SQ.2d 1434, 1438 (Fed. Cir. 1988). The teachings of the references can be combined only if there is some suggestion or incentive in the prior art to do so. *In re Fine*, 5 U.S.P.SQ.2d 1596, 1599 (Fed. Cir. 1988). Hindsight is strictly forbidden. It is impermissible to use the claims as a framework to pick and choose

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among individual references to recreate the claimed invention *Id.* at 1600; *W.L. Gore Associates, Inc., v. Garlock, Inc.*, 220 U.S.P.Q. 303, 312 (Fed. Cir. 1983).

Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992); *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

With respect to Applicants' invention, deinterlacing is an important step since the display rates and formats of video clips may be different. *Bergen* is silent as to the concept of, or need for, deinterlacing. The *Balram* reference relates only to the deinterlacing of video data. Thus, there is no suggestion in either reference to provide deinterlacing of images in a video clip with an indexing function.

At least for the reasons above, Applicants submit that independent claim 25 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, the Applicants respectfully request reconsideration and withdrawal of the obviousness rejection.

III. Allowable subject matter

Applicants thank the Examiner for allowing claim 27 and indicating that claims 24 and 26 have allowable subject matter. However, Applicants respectfully traverse the Examiner's objection to claim 24 as being dependent upon a rejected base claim. Claim 24 was previously rewritten in independent form in Applicants' January 5, 2004 response. Claim 26 is allowable at least for depending from independent claim 25 as presented above.


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Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §102 and 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

6/25/04
Date


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